

### Sound Absorption Coefficient

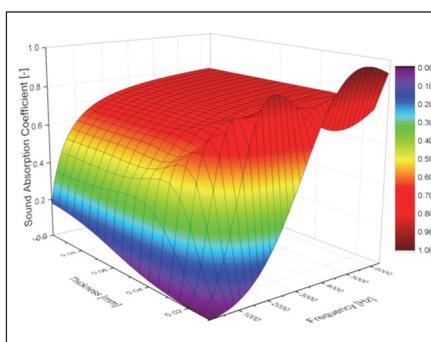
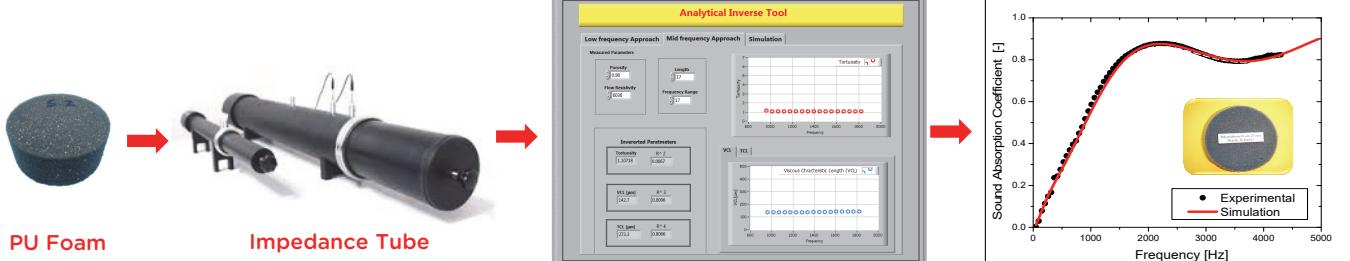
It is defined as the ratio of the sound energy reflected by a surface to the sound energy incident upon that surface.

### Test Standards

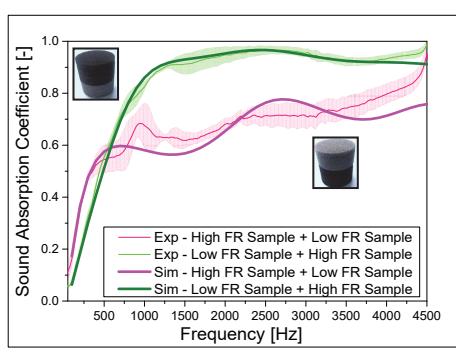
- ISO 10534 - Determination of sound absorption coefficient and impedance in impedance tube-Transfer function method
- ASTM E1050 - Standard test method for impedance and absorption of acoustical materials using a tube, two microphones and a digital frequency analysis system
- ISO 354 - Measurement of a sound absorption coefficient in a reverberation room
- ASTM C423 - Standard test method for sound absorption and sound absorption coefficients by reverberation chamber method

### Acoustic Material Characterization and Simulation

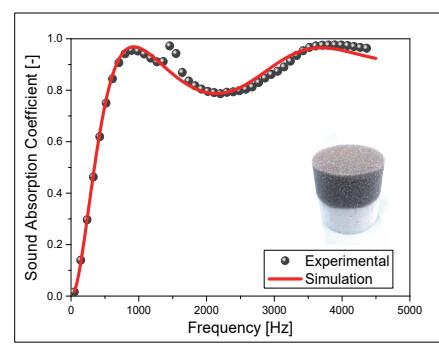
- Porosity Measurement by Porosity test rig
- Airflow Resistivity Measurement by Flow resistivity rig based on ASTM C522
- Tortuosity and characteristics lengths by indirect method and Inverse characterization
- Design and simulation of multilayer treatments for Genset and Industrial Applications
- Effect of Films / Foils / Resistive layers with Foams/Fibers/Felts



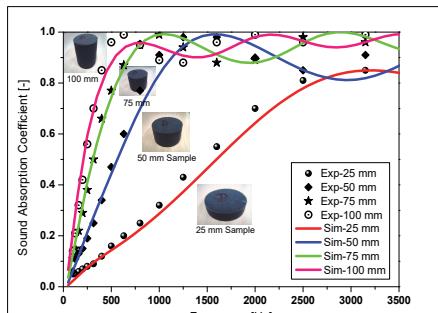
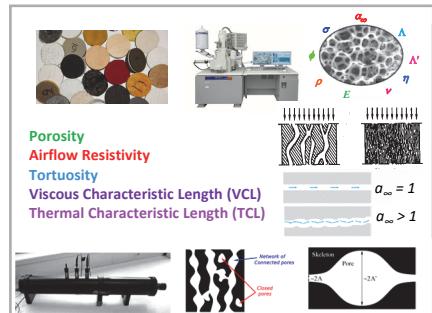
Multilayer Sound Absorption Simulation



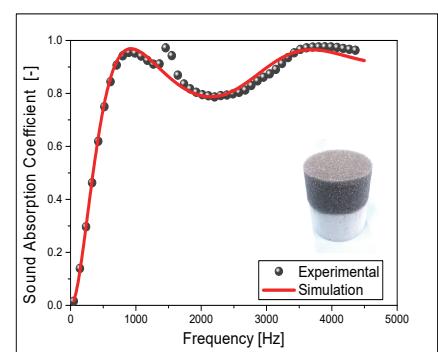
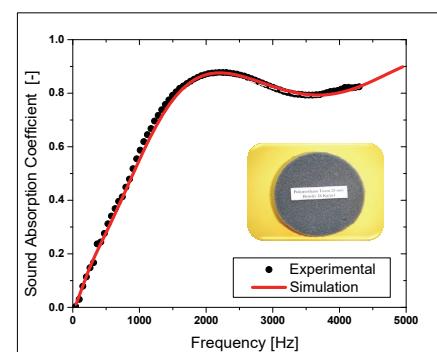
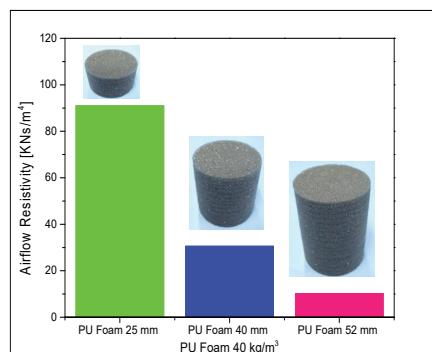
Variation in Airflow Resistivity of Same Density Foam



Simulation and Validation for multilayer combination



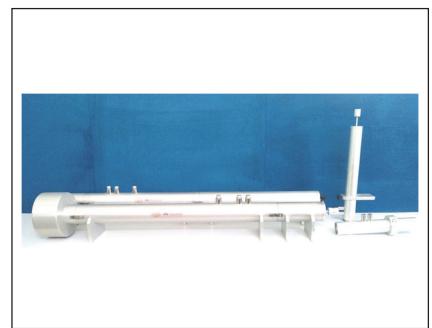
Macroscopic Characterization



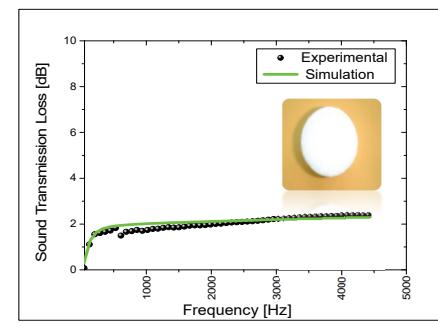
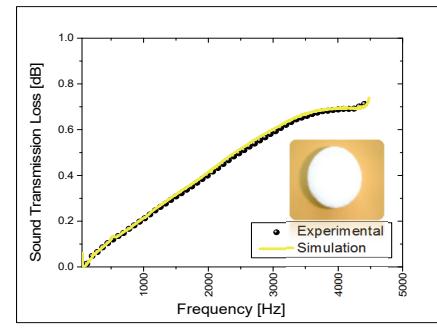
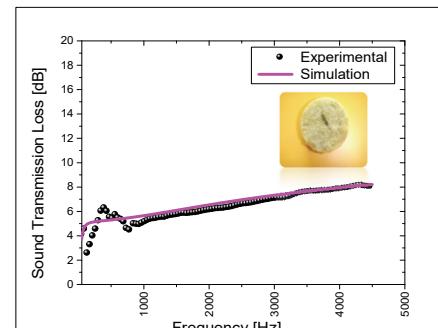
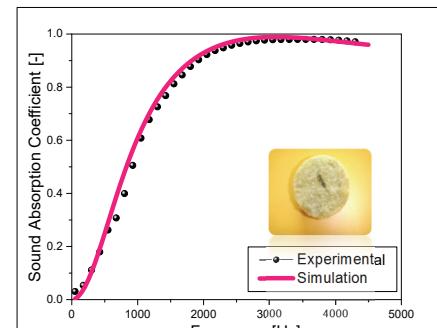
Airflow Resistivity Variation in same density foam

Simulation and Validation of PU Foam

Simulation and Validation for Composite PU Foam



Impedance Tube ASTM E1050 / ISO 10534-2 / ASTM E2611



Sound Absorption-Same Density, Same Thickness

Simulation of Polyester Felt Sound Absorption

Simulation of Polyester Felt Sound Transmission Loss

### Contact:

Dr. Paresh Shravage

[info@alfaacoustics.com](mailto:info@alfaacoustics.com) | [alfaacoustics@gmail.com](mailto:alfaacoustics@gmail.com)

+91 9423208575 / +91 9975082075

[www.alfaacoustics.com](http://www.alfaacoustics.com)